SEQUENCE LISTING

<110> Abbott Laboratories
Coleman, Paul F.
Mushahwar, Isa K.

<120> Hepatitis B Virus Surface Antigen Mutant
And Methods Of Detection Thereof

<130> 6794.US.01

<140> 09/821,877
<141> 2001-03-30

<160> 8

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 1181
<212> DNA
<213> Hepatitis B Virus

<400> 1
atggggcaga atctttccac cagcaatcct ctgggattct ttcccgacca ccagttggat 60
ccagccttca gagcaaacac caacaatcca gattgggact tcaatcccaa caaggacacc 120
tggccagacg ccaacaaggt aggagctgga gcattcggac tggggttcac cccaccgcac 180
ggaggccttt tggggtggag ccctcaggct cagggcataa cacaaacctt gccagcaaat 240
ccgcctcctg cttccaccaa tcgccagtca ggaaggcagc ctaccccgct gtctccacct 300
ttgagaaaca ctcatcctca agccatgcag tggaactcca caactttcca ccaaactctg 360
caagatccca gagtgagagg tctgtatttc cctgctggtg gctccagttc aggaacagta 420
aaccctgttc cgactactgt ctctcccata tcgtcaatct tctcgaggat tggggaccct 480
gcgcggaaca tggagaacat cacatcagga ttcctaggac ccctgctcgt gttacaggcg 540
gggtttttct tgttgacaag aatcctcaca ataccgcaga gtctagactc gtggtggact 600
tctctcaatt ttctaggggg aactaccgtg tgtcttggcc aaaattcgca gtccccaacc 660
tccaatcact caccaacctc ctgtcctcca acttgtcctg gttatcgctg gatgtgtctg 720
cggcgtttta tcatcttcct cttcatcctg ctgctatgcc tcatcttctt gttggttctt 780
ctggactatc aaggtatgtt gcccgtttgt cctctaattc caggatcttc aaccaccagc 840
acgggaccat gcagagcctg cacgactcct gctcaaggaa cctctatgta tccctcctgt 900
tgctgtacaa aaccttcgga tggaaactgc acctgtattc ccatcccatc atcctgggct 960
ttcggaaaat tcctatggga gtgggcctca gcccgtttct cctggctcag tttactagtg 1020
ccatttgttc agtggttcgt agggctttcc cccactgttt ggctttcagt tatatggatg 1080
atgttgtact gggggccaag tctgtacacc atcttgagtc ccttttacc gctgttacca 1140
attttctttt gtctttgggt atacatttaa accctaataa a 1181

<210> 2
<211> 389
<212> PRT
<213> Hepatitis B Virus

<400> 2
Met Gly Gln Asn Leu Ser Thr Ser Asn Pro Leu Gly Phe Phe Pro Asp
1 5 10 15
His Gln Leu Asp Pro Ala Phe Arg Ala Asn Thr Asn Asn Pro Asp Trp
20 25 30

```
Asp Phe Asn Pro Asn Lys Asp Thr Trp Pro Asp Ala Asn Lys Val Gly
        35                  40                  45
Ala Gly Ala Phe Gly Leu Gly Phe Thr Pro Pro His Gly Gly Leu Leu
    50                  55                  60
Gly Trp Ser Pro Gln Ala Gln Gly Ile Thr Gln Thr Leu Pro Ala Asn
65                  70                  75                  80
Pro Pro Pro Ala Ser Thr Asn Arg Gln Ser Gly Arg Gln Pro Thr Pro
                85                  90                  95
Leu Ser Pro Pro Leu Arg Asn Thr His Pro Gln Ala Met Gln Trp Asn
            100                 105                 110
Ser Thr Thr Phe His Gln Thr Leu Gln Asp Pro Arg Val Arg Gly Leu
        115                 120                 125
Tyr Phe Pro Ala Gly Gly Ser Ser Ser Gly Thr Val Asn Pro Val Pro
    130                 135                 140
Thr Thr Val Ser Pro Ile Ser Ser Ile Phe Ser Arg Ile Gly Asp Pro
145                 150                 155                 160
Ala Arg Asn Met Glu Asn Ile Thr Ser Gly Phe Leu Gly Pro Leu Leu
                165                 170                 175
Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro
            180                 185                 190
Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly Thr
        195                 200                 205
Thr Val Cys Leu Gly Gln Asn Ser Gln Ser Pro Thr Ser Asn His Ser
    210                 215                 220
Pro Thr Ser Cys Pro Pro Thr Cys Pro Gly Tyr Arg Trp Met Cys Leu
225                 230                 235                 240
Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu Leu Cys Leu Ile Phe
                245                 250                 255
Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro Leu
            260                 265                 270
Ile Pro Gly Ser Ser Thr Thr Ser Thr Gly Pro Cys Arg Ala Cys Thr
        275                 280                 285
Thr Pro Ala Gln Gly Thr Ser Met Tyr Pro Ser Cys Cys Cys Thr Lys
    290                 295                 300
Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile Pro Ser Ser Trp Ala
305                 310                 315                 320
Phe Gly Lys Phe Leu Trp Glu Trp Ala Ser Ala Arg Phe Ser Trp Leu
                325                 330                 335
Ser Leu Leu Val Pro Phe Val Gln Trp Phe Val Gly Leu Ser Pro Thr
            340                 345                 350
Val Trp Leu Ser Val Ile Trp Met Met Leu Tyr Trp Gly Pro Ser Leu
        355                 360                 365
Tyr Thr Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro Ile Phe Phe Cys
    370                 375                 380
Leu Trp Val Tyr Ile
385
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<210> 3
<211> 681
<212> DNA
<213> Hepatitis B Virus

<400> 3

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atggagaaca tcacatcagg attcctagga cccctgctcg tgttacaggc ggggtttttc      60
tggttgacaa gaatcctcac aataccgcag agtctagact cgtggtggac ttctctcaat     120
tttctagggg gaactaccgt gtgtcttggc caaaattcgc agtccccaac ctccaatcac     180
tcaccaacct cctgtcctcc aacttgtcct ggttatcgct ggatgtgtct gcggcgtttt     240
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atcatcttcc tcttcatcct gctgctatgc ctcatcttct tgttggttct tctggactat 300
caaggtatgt tgcccgtttg tcctctaatt ccaggatcat caaccaccag cacgggaccc 360
tgcagaacct gcacgactcc tgctcaagga acctctatgt atccctcctg ttgctgtaca 420
aaaccttcgg atggaaactg cacctgtatt cccatcccat catcctgggc tttcggaaaa 480
ttcctatggg agtgggcctc agcccgtttc tcttggctca gtttactagt gccatttgtt 540
cagtggttcg tagggctttc ccccactgtt tggctttcag ttatatggat gatgtggtat 600
tgggggccaa gtctgtacag catcttgagt ccctttttac cgctgttacc aattttcttt 660
tgtctttggg tatacattta a 681

<210> 4
<211> 182
<212> DNA
<213> Hepatitis B Virus

<220>
<223> "a" Determinant for the Hepatitis B Virus Strain

<400> 4
tatcaaggta tgttgcccgt ttgtcctcta attccaggat cttcaaccac cagcacggga 60
ccatgcagac ctgcacgact cctgctcaag gaacctctat gtatccctcc tgttgctgta 120
caaaaccttc ggatggaaac tgcacctgta ttcccatccc atcatcctgg gctttcggaa 180
aa 182

<210> 5
<211> 61
<212> PRT
<213> Hepatitis B Virus

<220>
<223> "a" Determinant for the mutant Hepatitis B Virus strain

<400> 5
Tyr Gln Gly Met Leu Pro Val Cys Pro Leu Ile Pro Gly Ser Ser Thr
1 5 10 15
Thr Ser Thr Gly Pro Cys Arg Ala Cys Thr Thr Pro Ala Gln Gly Thr
20 25 30
Ser Met Tyr Pro Ser Cys Cys Cys Thr Lys Pro Ser Asp Gly Asn Cys
35 40 45
Thr Cys Ile Pro Ile Pro Ser Ser Trp Ala Phe Gly Lys
50 55 60

<210> 6
<211> 690
<212> DNA
<213> Hepatitis B Virus

<220>
<223> Mutant Hepatitis B Virus Strain

<400> 6
gcgcggaaca tggagaacat cacatcagga ttcctaggac ccctgctcgt gttacaggcg 60
gggtttttct tgttgacaag aatcctcaca ataccgcaga gtctagactc gtggtggact 120
tctctcaatt ttctaggggg aactaccgtg tgtcttggcc aaaattcgca gtccccaacc 180
tccaatcact caccaacctc ctgtcctcca acttgtcctg gttatcgctg gatgtgtctg 240
cggcgtttta tcatcttcct cttcatcctg ctgctatgcc tcatcttctt gttggttctt 300
ctggactatc aaggtatgtt gcccgtttgt cctctaattc caggatcttc aaccaccagc 360

```
acgggaccat gcagagcctg cacgactcct gctcaaggaa cctctatgta tccctcctgt     420
tgctgtacaa aaccttcgga tggaaactgc acctgtattc ccatcccatc atcctgggct     480
ttcggaaaat tcctatggga gtgggcctca gcccgtttct cctggctcag tttactagtg     540
ccatttgttc agtggttcgt agggctttcc cccactgttt ggctttcagt tatatggatg     600
atgttgtact gggggccaag tctgtacacc atcttgagtc ccttttacc gctgttacca      660
attttctttt gtctttgggt atacatttaa                                      690
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<210> 7
<211> 690
<212> DNA
<213> Hepatitis B Virus

<400> 7

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gcgctgaaca tggagaacat cacatcagga ttcctaggac ccctgctcgt gttacaggcg      60
gggtttttct tgttgacaag aatcctcaca ataccgcaga gtctagactc gtggtggact     120
tctctcaatt ttctaggggg aactaccgtg tgtcttggcc aaaattcgca gtccccaacc     180
tccaatcact caccaacctc ctgtcctcca acttgtcctg gttatcgctg gatgtgtctg     240
cggcgtttta tcatcttcct cttcatcctg ctgctatgcc tcatcttctt gttggttctt     300
ctggactatc aaggtatgtt gcccgtttgt cctctaattc caggatcatc aaccaccagc     360
acgggaccct gcaggacctg cacgactcct gctcaaggaa cctctatgta tccctcctgt     420
tgctgtacaa aaccttcgga tggaaactgc acctgtattc ccatcccatc atcctgggct     480
ttcggaaaat tcctatggga gtgggcctca gcccgtttct cttggctcag tttactagtg     540
ccatttgttc agtggttcgt agggctttcc cccactgttt ggctttcagt tatatggatg     600
atgtggtatt gggggccaag tctgtacagc atcttgagtc ccttttacc gctgttacca      660
attttctttt gtctttgggt atacatttaa                                      690
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<210> 8
<211> 229
<212> PRT
<213> Hepatitis B Virus

<220>
<221> VARIANT
<222> (126)...(126)
<223> Xaa = A or T at position 126

<221> VARIANT
<222> (202)...(202)
<223> Xaa = L or W at position 202

<221> VARIANT
<222> (210)...(210)
<223> Xaa = T or S at position 210

<400> 8

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Ala Arg Asn Met Glu Asn Ile Thr Ser Gly Phe Leu Gly Pro Leu Leu
 1               5                  10                  15
Val Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro
            20                  25                  30
Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly Thr
        35                  40                  45
Thr Val Cys Leu Gly Gln Asn Ser Gln Ser Pro Thr Ser Asn His Ser
    50                  55                  60
Pro Thr Ser Cys Pro Pro Thr Cys Pro Gly Tyr Arg Trp Met Cys Leu
65                  70                  75                  80
Arg Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu Leu Cys Leu Ile Phe
                85                  90                  95
```

```
Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro Leu
                100                 105                 110
Ile Pro Gly Ser Ser Thr Thr Ser Thr Gly Pro Cys Arg Xaa Cys Thr
            115                 120                 125
Thr Pro Ala Gln Gly Thr Ser Met Tyr Pro Ser Cys Cys Cys Thr Lys
    130                 135                 140
Pro Ser Asp Gly Asn Cys Thr Cys Ile Pro Ile Pro Ser Ser Trp Ala
145                 150                 155                 160
Phe Gly Lys Phe Leu Trp Glu Trp Ala Ser Ala Arg Phe Ser Trp Leu
                165                 170                 175
Ser Leu Leu Val Pro Phe Val Gln Trp Phe Val Gly Leu Ser Pro Thr
            180                 185                 190
Val Trp Leu Ser Val Ile Trp Met Met Xaa Tyr Trp Gly Pro Ser Leu
        195                 200                 205
Tyr Xaa Ile Leu Ser Pro Phe Leu Pro Leu Leu Pro Ile Phe Phe Cys
    210                 215                 220
Leu Trp Val Tyr Ile
225
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